

# SANITATION DISTRICTS OF LOS ANGELES COUNTY

Joint Administration Office, Whittier



# FACT SHEET

**The Sanitation Districts protect public health and the environment through innovative and cost-effective wastewater and solid waste management, and in doing so convert waste into resources such as recycled water, energy and recycled materials.**

## **ORGANIZATION**

The Sanitation Districts function on a regional scale and consist of 23 independent special districts serving about 5.4 million people in Los Angeles County. The service area covers approximately 815 square miles and encompasses 78 cities and unincorporated territory within the county.

## **GETTING THE JOB DONE**

The Sanitation Districts were formed in 1923 when a significant number of cities were forming and it was clear that managing wastewater on a regional scale made sense. The Districts were created to construct, operate, and “maintain facilities that collect, treat, recycle, and dispose of domestic and industrial wastewater.” Individual districts operate and maintain their own portions of the collection system.

Cities and unincorporated parts of the county are responsible for the collection of wastewater through local sewers and for the collection of solid waste. In the 1950's, it became apparent that solid waste management also needed a regional approach. At that time, the Districts were given the responsibility to provide for the management of collected solid waste, including disposal and transfer operations, and materials and energy recovery.

To maximize efficiency and reduce costs, the 23 Districts work cooperatively under a Joint Administration Agreement with one administrative staff headquartered near the City of Whittier. Each Sanitation District has a Board of Directors consisting of

the mayor of each city, and the Chair of the Board of Supervisors for unincorporated territory. Each District pays its proportionate share of joint administrative costs.

## **GOING THE DISTANCE**

Approximately 1,400 miles of main trunk sewers, 50 pumping plants, and 11 wastewater treatment plants convey and treat about half the wastewater in Los Angeles County. The Sanitation Districts' solid waste management sites provide about one fourth of the countywide solid waste management needs. The Sanitation Districts operate three sanitary landfills, four landfill energy recovery facilities, two recycle centers, three materials recovery/transfer facilities, and participate in the operation of two refuse-to-energy facilities.

## **BUDGET**

Overall wastewater and solid waste management budgets for 2011-12 are \$580 million and \$203 million, respectively. Both systems provide their essential public services at some of the most competitive service charges in the country.

WASTEWATER  
SOLID WASTE  
ENERGY RECOVERY

# WASTEWATER MANAGEMENT

## JOINT OUTFALL SYSTEM

Seventeen of the Sanitation Districts in the metropolitan Los Angeles area are served by a regional, interconnected system of facilities known as the Joint Outfall System (JOS). The JOS service area includes 73 cities and unincorporated territory, and small areas within the City of Los Angeles, Orange County, and San Bernardino County.

The JOS employs two main types of treatment plants. Upstream water reclamation plants capture higher quality wastewater and convert it into a drought-proof source of water called recycled water. Downstream, the Joint Water Pollution Control Plant (JWPCP) treats wastewater with a higher industrial contribution and the solids removed at the upstream plants. The JWPCP discharges its treated water to the ocean. This innovative configuration provides an efficient means to maximize recycled water production and its availability on a regional scale. Treating wastewater for reuse is an important way that Southern Californians can maintain a high quality of life in an otherwise arid land.

There are six water reclamation plants in the JOS, which span from Long Beach to La Canada Flintridge and from the Los Angeles City boundary to the Orange County line (see map on back page).

## SANTA CLARITA AND ANTELOPE VALLEYS

Separate from the JOS, smaller regional wastewater systems are managed by the Sanitation Districts in the Santa Clarita Valley and the Antelope Valley. Each of these valleys is home to two water reclamation plants that provide important sources of water for wildlife habitats and for municipal and agricultural reuse.



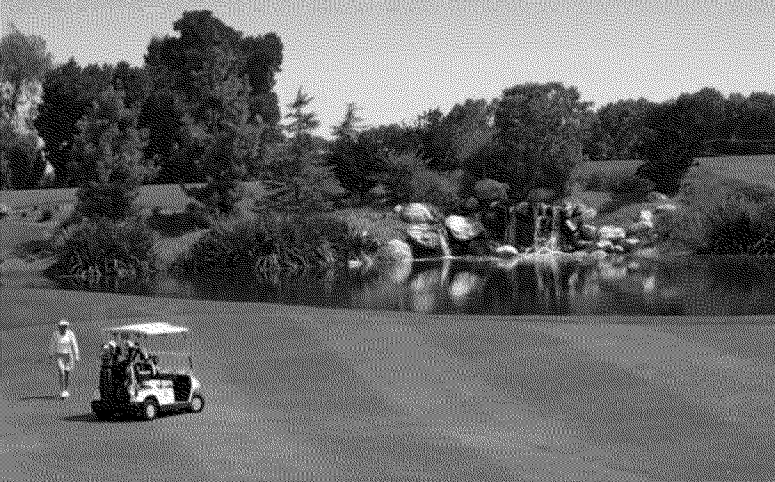
Joint Water Pollution Control Plant, Carson



Santa Clara River receives treated effluent from the Saugus and Valencia WRPs



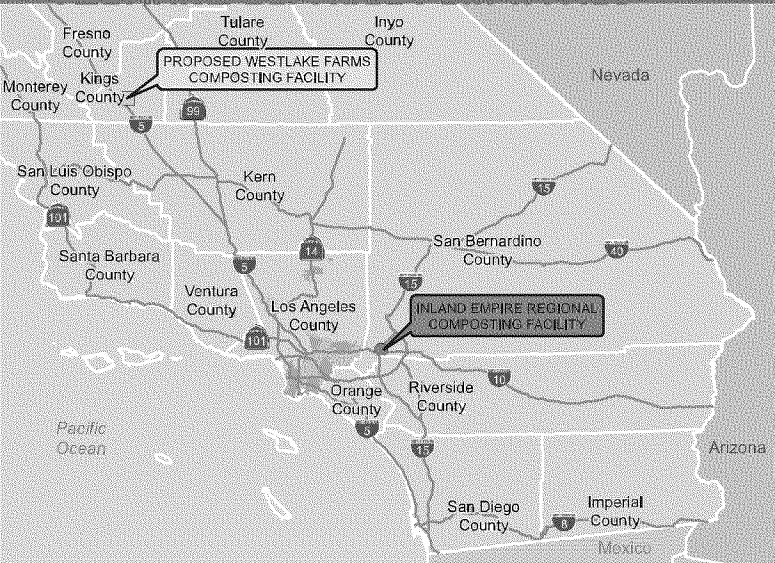
Treated effluent from the Lancaster WRP



San Jose Creek Water Reclamation Plant



Recycled Water



## PIONEERING THE REUSE OF RECYCLED WATER

The Sanitation Districts are pioneers in using recycled water beneficially and remain strong proponents of expanding reuse options. The JOS WRPs produce a high-quality source of recycled water that essentially meets drinking water standards and is reused at more than 600 sites throughout the county. Uses of recycled water include industrial, commercial, and recreational applications; groundwater recharge; agriculture; and landscape, park, and golf course irrigation. Wastewater received at the JWPCP is higher in salts making it more costly to recycle and reuse.



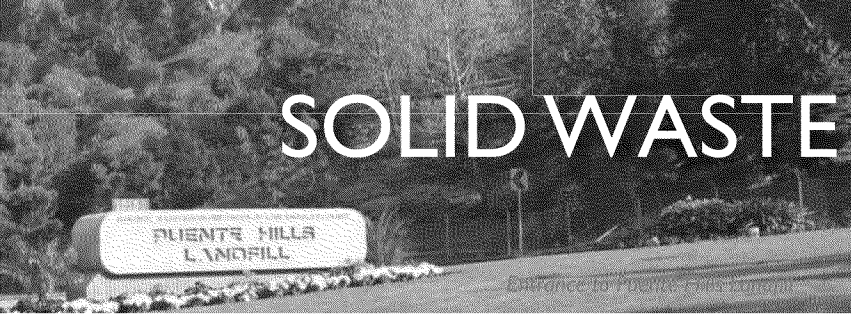
Groundwater Recharge at the Rio Hondo Spreading Basins

## POWERING UP THROUGH BIOSOLIDS MANAGEMENT

500,000 tons of biosolids per year is how much the Sanitation Districts' sewerage system produces as a byproduct of wastewater treatment. Prior to spreading, the biosolids are digested, producing a biogas that is converted to electricity or used for heating parts of the digestion process. As a result, the JWPCP is virtually energy self-sufficient. Biosolids are also beneficially reused through a variety of management options: as a soil amendment for agriculture, in the manufacture of high-quality compost, and for cogeneration as a fuel in a cement kiln.

Looking toward a sustainable future, the Sanitation Districts' long-range plan includes development of two state-of-the-art composting sites (see map). The Inland Empire Regional Composting Facility in Rancho Cucamonga is an entirely enclosed composting facility developed in a joint venture with the Inland Empire Utilities Agency. The Westlake Farms Co-Composting Facility in Kings County will compost Sanitation Districts' biosolids with the Central Valley's agricultural waste and urban green waste. This facility is scheduled to be operational in 2013.

# SOLID WASTE MANAGEMENT



The Sanitation Districts operate a comprehensive solid waste management system serving the needs of a large portion of Los Angeles County. This system includes sanitary landfills, recycle centers, materials recovery/transfer facilities, and energy recovery facilities. In every operation, the first order of business is to insure a “good neighbor policy” that strives for a safe balance with surrounding communities.

## WHO'S WHO OF DISPOSAL FACILITIES

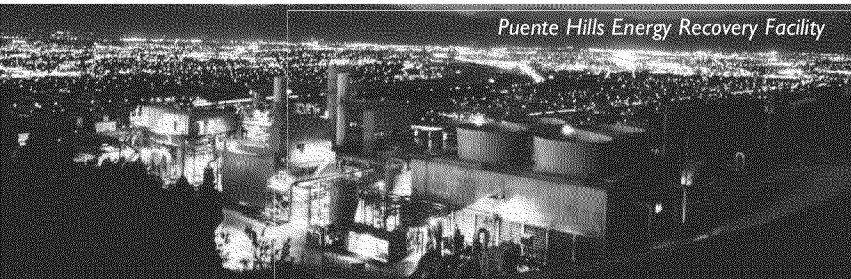
The Puente Hills Landfill, located near the City of Whittier, is one of the largest landfills in the nation. Puente Hills is the site of the development of advanced environmental control systems that are now used at well-operated landfills throughout the state and nation. These systems, designed to protect air quality and groundwater, include extensive landfill gas collection networks and underground liners.

The two other operational sites are the Calabasas Landfill, located near the City of Agoura Hills, and the Scholl Canyon Landfill, located in the City of Glendale. At the closed Spadra, Palos Verdes, and Mission Canyon Landfills, the Sanitation Districts continue to maintain environmental control systems.

## ENERGIZING SOUTHERN CALIFORNIA THROUGH RECOVERY FACILITIES

One of the first to utilize biogas as a natural resource to produce renewable energy, the Sanitation Districts' energy recovery facilities at the Puente Hills, Spadra, and Calabasas Landfills provide reliable and economic electrical power to help serve Southern California's increasing energy needs.

The use of solid waste as a fuel to produce power reduces our reliance on fossil fuels while helping to prolong the remaining landfill capacity in the region. The Commerce Refuse-to-Energy Facility is the first of its kind in California. It is owned by a joint powers authority (JPA) created by the Sanitation Districts and the City of Commerce and is operated by the Sanitation Districts. Similarly, the Southeast Resource Recovery Facility (SERRF) in Long Beach is owned by a JPA consisting of the Sanitation Districts and the City of Long Beach, and is operated for the JPA by a private company.



*Puente Hills Energy Recovery Facility*



*Botanic Gardens situated on the closed Palos Verdes Landfill*



## RECYCLING AND MATERIALS RECOVERY/TRANSFER FACILITY

As the list of recyclables continues to grow, the Sanitation Districts are deploying new, more sophisticated technology to maximize cost-efficiency. In fact, the Sanitation Districts own and operate facilities that help Los Angeles County meet its goals in diverting waste from landfills and in providing cost-effective transfer of municipal solid waste to landfills by truck or rail.

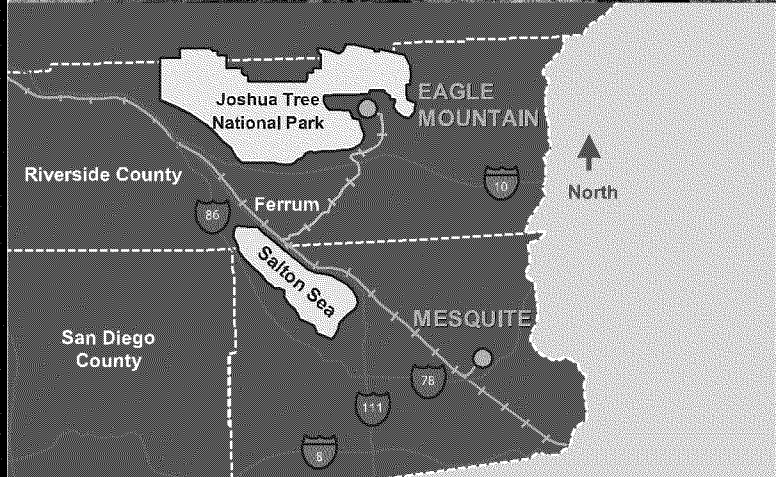
The recycle centers located at the Puente Hills and Palos Verdes Landfills are Certified California Clean-Back Centers. The Puente Hills Materials Recovery Facility (MRF) and the Downey Area Recycling and Transfer (DART) facility recover recyclable material, such as paper and plastics, through a combination of manual and mechanical methods. The 300,000 sq. ft. Transfer Station reduces operational costs by consolidating smaller loads into larger ones for transport to landfills.

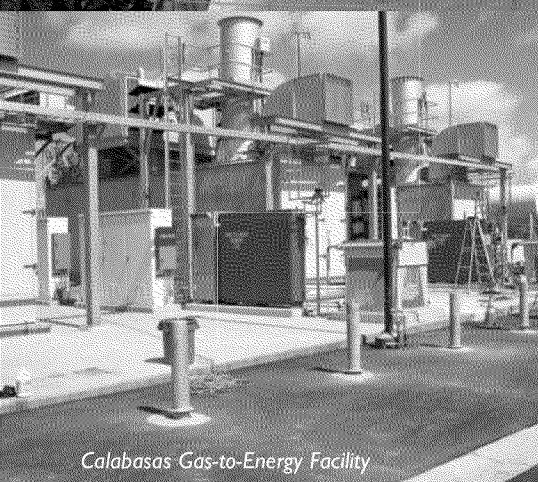
## TRACKING THE FUTURE WITH WASTE-BY-RAIL

The pioneering spirit is again apparent as the Sanitation Districts take the lead role in implementing the Waste-by-Rail System for the transport of waste to distant disposal facilities by train. This innovative system will provide long-term disposal capacity to replace local landfills as they reach capacity and close.

The Puente Hills MRF is the initial infrastructure for the Waste-by-Rail System. In order to further develop the system, the Sanitation Districts have completed construction of the Mesquite Regional Landfill in Imperial County (see map, bottom right), which is permitted to receive up to 20,000 tons per day for approximately 100 years. Construction of the Puente Hills Intermodal Facility is now underway. The Sanitation Districts have also entered into a purchase agreement for the fully permitted Eagle Mountain Landfill in Imperial County, but the acquisition is contingent upon successful resolution of pending federal litigation.

Puente Hills Materials Recovery and Intermodal Facilities

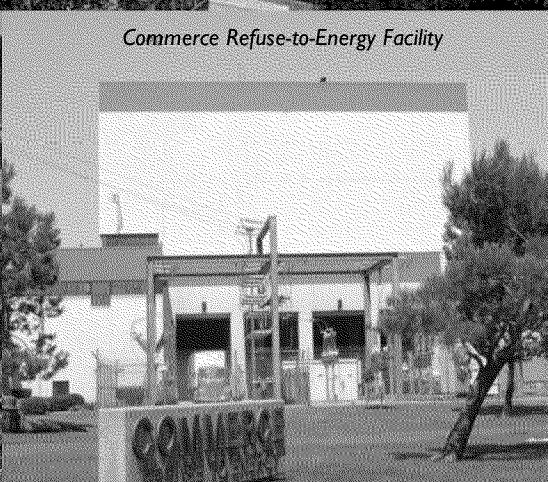




Calabasas Gas-to-Energy Facility



Joint Water Pollution Control Plant Total Energy Facility



Commerce Refuse-to-Energy Facility

# ENERGY RECOVERY

The Sanitation Districts are leaders in the production of green energy and the recycling of water and materials. The following are just a few of our accomplishments

- Almost 125 megawatts (MW) of electricity are generated in Sanitation Districts' wastewater and solid waste operations. In total, the Sanitation Districts produce power equivalent to the needs of about 170,000 Southern California homes. Generation was increased with a new gas-to-energy facility at the Calabasas Landfill in 2010. Some of the electricity is used in powering Sanitation Districts' operations; the rest is used to reduce the amount of power produced by utilities, thereby reducing greenhouse gas emissions.

## **ENERGY PROGRAMS IN WASTEWATER**

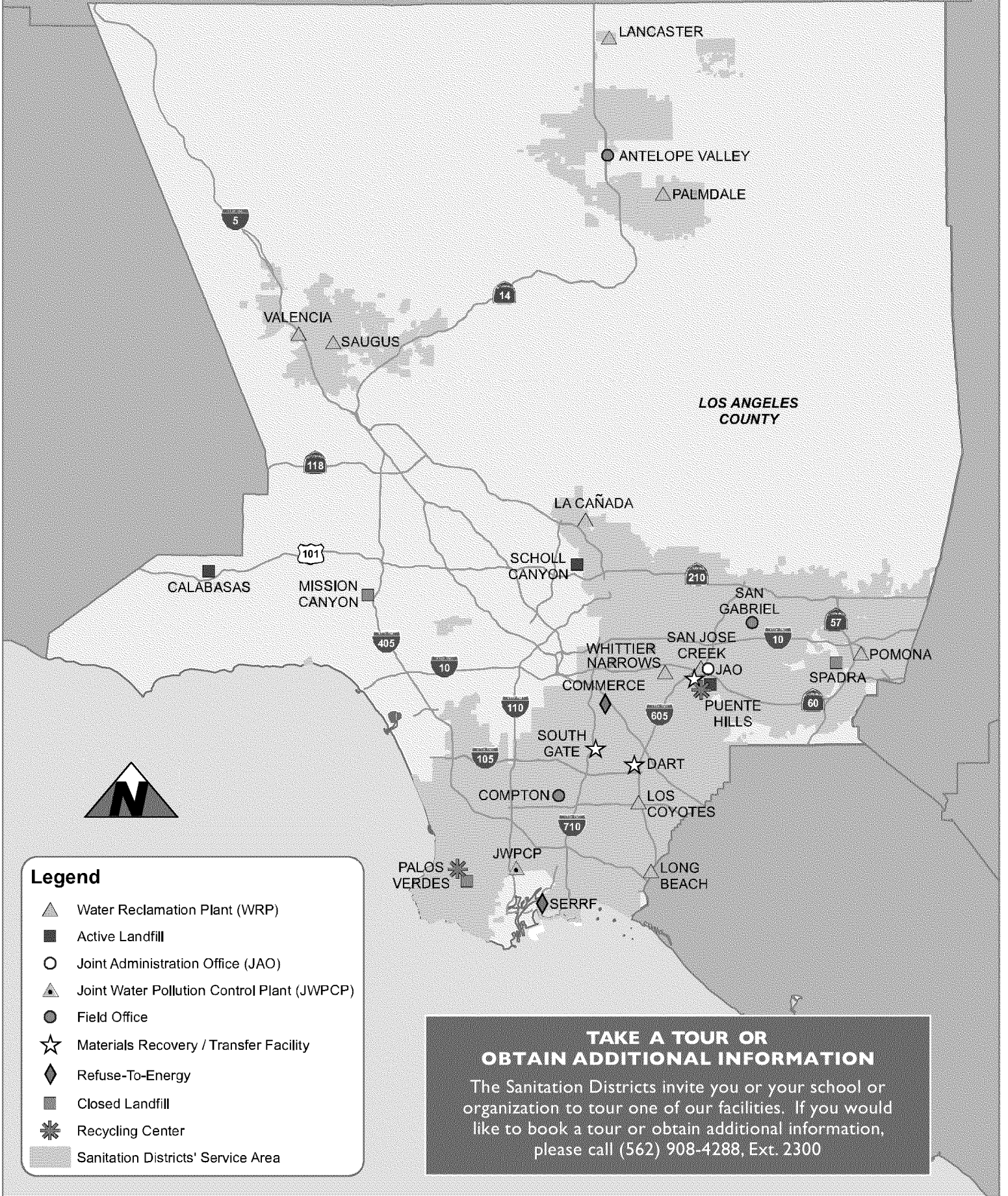
- The JWPCP uses biogas to generate 18 MW of electricity, making the facility virtually energy self-sufficient and saving approximately \$15 million per year. Excess electricity is sold to the local power grid.

## **ENERGY EFFICIENCY IN WASTEWATER**

The Sanitation Districts have been leaders in energy efficiency at wastewater treatment plants for decades. Technologies such as fine bubble diffusion, variable speed drives, and high efficiency motors have allowed the Sanitation Districts to save millions of dollars in power costs.

## **ENERGY PROGRAMS IN SOLID WASTE**

- Gas-to-Energy Facilities: Biogas, generated during the decomposition of organic material managed in landfills, is used to generate electricity. At the Puente Hills Landfill alone, enough electricity is generated to power about 60,000 Southern California homes. Most of this power is sold to the local power grid, with the remainder used at the nearby San Jose Creek Water Reclamation Plant.
- Commerce Refuse-to-Energy Facility and SERRF: These facilities utilize controlled combustion to convert refuse to electricity - enough to power approximately 55,000 Southern California homes. Sophisticated air pollution control devices make these facilities some of the cleanest of their type in the world.



**Legend**

- ▲ Water Reclamation Plant (WRP)
- Active Landfill
- Joint Administration Office (JAO)
- ▲ Joint Water Pollution Control Plant (JWPCP)
- Field Office
- ☆ Materials Recovery / Transfer Facility
- ◆ Refuse-To-Energy
- Closed Landfill
- ✱ Recycling Center
- Sanitation Districts' Service Area

**TAKE A TOUR OR OBTAIN ADDITIONAL INFORMATION**

The Sanitation Districts invite you or your school or organization to tour one of our facilities. If you would like to book a tour or obtain additional information, please call (562) 908-4288, Ext. 2300